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AMENDMENTS TO THE CLAIMS

1. – 5. (Canceled)

6. (Currently amended) The apparatus of claim ~~68~~ 59 further comprising a pressure sensor mounted to said wrap, said pressure sensor adapted to turn ON said control unit when said pressure sensor is activated.

7. (Currently amended) The apparatus of claim ~~68~~ 59, further including a strap, said strap mounted on the outer surface of said outer layer and adapted to attach said wrap to said body surface.

8. – 11. (Canceled)

12. (Previously amended) The apparatus of claim 59, wherein said wrap further includes first and second insulate layers, said insulate layers positioned between said first and second conductive layers, on opposite sides of and contacting each said TE device.

13. (Previously amended) The apparatus of claim 12, wherein said wrap further includes a wiring/tubing layer positioned between said first and second insulate layers.

14. (Original) The apparatus of claim 12, wherein said first and second elastic layers are formed of a ventilatory material.

15. (Canceled)

16. (Currently amended) The apparatus of claim ~~8~~ 59, further comprising at least one electrode mounted to said lower layer for receipt of information from said control unit and for transmission of an ~~electrical~~ electric pulse to the body surface.

17. (Previously amended) The apparatus of claim ~~68~~ 59, further comprising at least one pressure sensor mounted to said wrap for receipt of information from said control unit.

18. (Currently amended) The apparatus of claim ~~68~~ 59, further comprising at least one electrode mounted to said wrap for receipt of information from said control unit and for transmission of an electric pulse to said body surface.

19. (Currently amended) The apparatus of claim 12, further comprising first cavity means for receipt of fluid located between and formed by said second insulate layer ~~and said wiring/tubing layer~~.

20. (Currently amended) The apparatus of claim 12, further comprising second cavity means for receipt of fluid located between and formed by said first insulate layer ~~and said wiring/tubing~~.

21. (Currently amended) The apparatus of claim 19, wherein said ~~second~~ first cavity means comprises two smaller cavities, and a fluid passage connecting said smaller cavities.

22. (Currently amended) The apparatus of claim 20, wherein said ~~first~~ second cavity means comprises two smaller cavities, and a fluid passage connecting said smaller cavities.

23. (Currently amended) The apparatus of claim ~~68~~ 59, wherein each said TE device comprises a Peltier device.

24. (Canceled)

25. (Previously amended) The apparatus of claim 60, further comprising at least one pressure sensor disposed on said outer surface of said inner layer.

26. and 27. (Canceled)

28. (Currently amended) The apparatus of claim ~~62~~ 59, further comprising at least one pressure sensor disposed on the inner surface of said inner layer.

29. (Currently amended) The apparatus of claim ~~62~~ 59, further comprising at least one electrode disposed on the inner surface of said inner layer.

30. (Currently amended) The apparatus of claim ~~62~~ 29, further comprising at least one pouch disposed on the inner surface of said inner layer for placement of at least one electrode.

31. (Currently amended) The apparatus of claim ~~62~~ 30, further comprising a template for the location of each said electrode on said body surface, and the appropriate pouch disposed on the inner surface of said inner layer.

32. – 47. (Canceled)

48. (Previously amended) The device of claim 60, further comprising an electrical stimulation unit, said electrical stimulation unit connected to said microprocessor for delivery of an electrical pulse to said body surface.

49. (Original) The device of claim 48, wherein said electrical stimulation unit comprises a waveform generator connected to said microprocessor, a modulator unit connected to said waveform generator, a driver connected to the modulator, and at least one electrode connected to said driver to deliver the electrical pulse to the body surface.

50. and 51. (Canceled)

52. (Previously amended) The device of claim 65, wherein said iontophoresis unit comprises a medication interface connected to said microprocessor, a medication controller unit connected to said medication interface, a medication dispenser connected to said medication controller, and at least one special electrode connected to said medication dispenser to deliver said medication to said body surface.

53. (Canceled)

54. (Previously amended) The device of claim 63, further comprising a data link unit connected to said microprocessor for transfer of information to and from said microprocessor.

55. (Original) The device of claim 54, wherein said data link unit comprises an input/output interface connected to said microprocessor, a data input/output processor and an input/output connector connected to said input/output interface, and a transceiver connected to said input/output processor to transfer data to a remote computer.

56. (Original) The device of claim 54, further comprising a remote computer unit, connected to said device, for processing of information to and from the apparatus microprocessor.

57. (Original) The device of claim 56, wherein said remote computer unit comprises a transceiver connected to said signal processor, an input/output unit connected to said signal processor, and a computer connected to said input/output unit to process and transfer data to the apparatus.

58. (Original) An apparatus for providing a therapeutic treatment to the body surface, comprising:

a wrap adapted to be secured to the body surface;

at least one temperature sensor mounted to said wrap to measure an actual temperature of the body surface;

at least one TE device mounted to said wrap to selectively deliver heat to and remove heat from the body surface;

at least one electrode mounted to said wrap to deliver an electrical pulse to the body surface;

at least one special electrode mounted to said wrap to deliver medication to the body surface;

a controller mountable to said wrap for receiving the actual temperature of the body surface from said at least one temperature sensor and for communication with said at least one TE device and said at least one electrode and said at least one special electrode simultaneously, thereby simultaneously medicating, electrically stimulating, and selectively delivering heat to and removing heat from the body surface.

59. (Previously presented) An apparatus for providing at least one of therapeutic heating and cooling to a body surface comprising:

a wrap adapted to be secured to said body surface, said wrap including an outer layer facing away from said body surface and an inner layer facing toward said body surface when said wrap is so secured, first and second elastic layers positioned between said inner and outer layers, and first and second conductive layers positioned between said first and second elastic layers;

at least one temperature sensor mounted to said inner layer for measuring an actual temperature of said body surface;

at least one TE device mounted between said first and second conductive layers to selectively deliver heat to and remove heat from said body surface; and

a control unit mounted to said outer layer for receiving the actual temperature of said body surface from each said temperature sensor and for communication with each said TE device to operate the same as one of a heater and a cooler thereby achieving a desired temperature of said body surface.

60. (Previously presented) The apparatus of claim 12 further comprising a wiring/tubing layer disposed between said first and second insulate layers, each said TE device connected to said wiring/tubing layer, and each said temperature sensor being positioned on the outer surface of said inner layer.

61. (Previously presented) The apparatus of claim 12 further comprising a wiring/tubing layer disposed between said first and second insulate layers, each said TE device connected to said wiring/tubing layer, and wherein said inner layer comprises a fluid transfer medium with each said temperature sensor being mounted to said fluid transfer medium.

62. (Currently presented) The apparatus of claim 61 further comprising a cavity layer providing at least one expandable cavity for filling with fluid, said cavity layer disposed between said wiring/tubing layer and one of said first and second insulate layers.

63. (Currently amended) A device for achieving a desired temperature of a body surface comprising:

a power source[[,]];

at least one temperature sensor that detects an actual temperature on said body surface[[,]];

a controller, said controller comprising a microprocessor having memory that stores at least one program for adjusting said desired temperature over time;[[,]]

a first switch responsive to said actual temperature detected by any of said temperature sensors that turns OFF said power source when said actual temperature is either above a maximum or below a minimum temperature[[,]];

at least one TE device connected to receive a signal from said controller corresponding to said desired temperature and to deliver at least one of heating and cooling to said body surface in response to said desired temperature[[,]];

a second switch electrically communicating with each said TE device and adapted to operate each said TE device to which it is connected to deliver one of heating or cooling[[,]]; and

a heart rate sensor unit comprising an ultra miniature microphone connected to a preamp, an active switched capacitor filter connected to said preamp, at least one amplifier connected to said active switched capacitor filter, at least one digitizer connected to said amplifier, and a microprocessor connected to each said digitizer.

64. (Currently amended) A device for achieving a desired temperature of a body surface comprising:

a power source[[,]];

at least one temperature sensor that detects an actual temperature on said body surface[[,]];

a controller, said controller comprising a microprocessor having a memory that stores at least one program for adjusting said desired temperature, said microprocessor connected to at least one breathing rate sensor for receipt of a signal indicative of an actual breathing rate of the user[[,]];

a first switch responsive to said actual temperature detected by any of said temperature sensors that turns OFF said power source when said actual temperature is either above a maximum or below a minimum temperature[[,]];

at least one TE device connected to receive a signal from said controller corresponding to said desired temperature and to deliver at least one of heating and cooling to said body surface in response to said desired temperature[[,]]; and

a second switch electrically communicating with each said TE device and adapted to operate each said TE device to which it is connected to deliver one of heating or cooling.

65. (Currently amended) A device for achieving a desired temperature of a body surface comprising:

a power source[[,]];

at least one temperature sensor that detects an actual temperature on said body surface[[,]];

a controller, said controller comprising a microprocessor having memory that stores at least one program for adjusting said desired temperature over time[[,]];

a first switch responsive to said actual temperature detected by any of said temperature sensors that turns OFF said power source when said actual temperature is either above a maximum or below a minimum temperature[[,]];

at least one TE device connected to receive a signal from said controller corresponding to said desired temperature and to deliver at least one of heating and cooling to said body surface in response to said desired temperature[[,]];

a second switch electrically communicating with each said TE device and adapted to operate each said TE device to which it is connected to deliver heating or cooling[[,]];

an electrical stimulation unit connected to said microprocessor for delivery of an electrical pulse to said body surface[[,]]; and

an ionthophoresis unit connected to said microprocessor for delivery of medication to said body surface.

66. (Currently amended) A device for achieving a desired temperature of a body surface comprising:

a power source[[,]];

at least one temperature sensor that detects an actual temperature on said body surface[[,]];

a controller, said controller comprising a microprocessor having memory that stores at least one program for adjusting said desired temperature over time[[,]];

a first switch responsive to said actual temperature detected by any of said temperature sensors that turns OFF said power source when said actual temperature is either above a maximum or below a minimum temperature[[,]];

at least one TE device connected to receive a signal from said controller corresponding to said desired temperature and to deliver at least one of heating and cooling to said body surface to return said body surface to said desired temperature[[,]];

a second switch electrically communicating with each said TE device and adapted to operate each said TE device to which it is connected ~~to device~~ to deliver one of heating and cooling[[,]];

an electrical stimulation unit connected to said microprocessor for delivery of an electrical pulse to said body surface, said electrical stimulation unit comprising a waveform generator connected to said microprocessor, a modulator unit connected to said waveform generator, a driver connected to said modulator, and at least one electrode connected to said driver to deliver said electrical pulse to said body surface[[,]]; and

an evoked response detection unit comprising an ultra miniature microphone connected to a preamp, an active switched capacitor filter connected to said preamp, at least one amplifier connected to said active switched capacitor filter, at least one digitizer connected to said amplifier, and a microprocessor connected to said digitizer.

67. (Previously amendcd) The apparatus of claim 13, wherein each said TE device is embedded in said wiring/tubing layer.

68. (Canceled)